$n_2 = 5n_{(MnO_4^-)} = 5 \times C_2V_2$;AN $n_2 = 5 \times 0,05 \times 12.10^{-3} = 3.10^{-3} mol$

3) Calcul de C_0 :

$$C_0 = \frac{n_{Fe^{2+}}}{V_0} = \frac{n_1 + n_2}{V_0}$$

$$C_0 = \frac{3.10^{-3} + 3.10^{-3}}{60.10^{-3}} = 0,1 mol.L^{-1}$$

$$\boxed{C_0 = 0,1 mol.L^{-1}}$$

10

1) $5SO_2 + 6H_2O + 2MnO_4^- \rightarrow 5SO_4^{2-} + 4H_3O^+ + 2Mn^{2+}$

Les deux couples sont :

MnO_4^- / Mn^{2+} et SO_4^{2-} / SO_2

2) $n_{SO_2} = \frac{5}{2} n_{MnO_4^-}$

2/ $n_{MnO_4^-} = C_1V_1$ *et* $n_{SO_2} = C_2V_2$

3/- $C_2V_2 = \frac{5}{2} C_1V_1$

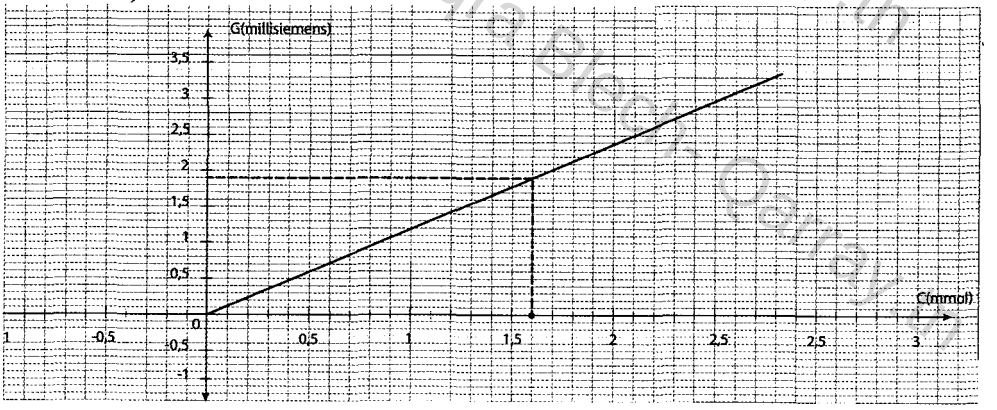
$$\boxed{C_2 = \frac{5C_1V_1}{2V_2}}$$

A.N : $C_2 = \frac{5 \times 0,1 \times 5}{2 \times 10}$

$C_2 = 0,125 mol.L^{-1}$

11

1)



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